UNITED STATES PATENT APPLICATION

of

DALE SANDBERG

for

METHOD AND SYSTEM FOR RECORDING AND MAINTAINING PATIENT HISTORY DATA AS WELL AS GENERATING CONCURRENT BILLING RECORDS

BACKGROUND OF THE INVENTION

The present invention relates generally to maintaining medical records of patients within a health care organization and, more specifically, to maintaining and updating medical records in a computer network system that also provides

5   concurrent billing records reflective of the value of the services rendered.

Record keeping is critically important in the health care industry. Computerized health record data bases have been provided in the health care industry in recent years. The use of these data bases allows for a record of the patient to be maintained, which aids the health care provider in evaluating the

10   patient's health and treatment history with that particular health care organization. Further, the recording of health care history for a group of patients is useful in conducting medical research for individuals having like symptoms and like treatments. Further still, the advantage of having computerized data bases aids in managing costs and providing billing records for the health care provider, the patient,

15   the insurance providers, as well as any governmental health care program such as, for example, Medicare.

In the past, the input of medical history information for a given patient was provided either by the health care provider directly via a recording system or was transcribed by a staff member from a physician's notes of a visit with a particular

20   patient. These records would then be placed within a computerized data base for later recall. However, it was not easy to discern what were the costs to the patient for the treatment provided by the physician or for the services rendered by the health care organization in such a transcription. Even with this method and system for recording patient histories within a common data base, there is still a need to provide

25   accurate billing information to the patient and to the doctor at any given time. The system provided for a billing invoice to be provided, but only after the doctor's notes

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had been sent to the accounting department and billing records personnel, which would either be discussed with the patient prior to leaving or sent to the patient at a later date following the actual visit. Neither the doctor nor the patient knew what the costs of the services would be until after the visit had been concluded and the patient

5 had visited with the billing personnel. Further, the billing personnel would then have to translate the doctor's notes into codes that would be acceptable for insurance billing purposes, which would include codes to private insurance as well as codes to public insurance, such as Medicare. This required that the billing personnel became highly specialized in insurance procedures where the physicians or primary health

10 care providers needed the services of such specialization in order to obtain payment from the insurance providers. If there was trouble with converting the real time medical records into appropriate insurance language, then the health care organization would be delayed in obtaining revenue from the insurance sources to pay for the covered services.

15   Improved computerized data entry systems later came along that allowed a physician or health care provider to enter patient medical information during the examination, but that information still needed to be processed by the billing personnel prior to an accounting of services and costs could be given to the patient. It did speed up the recording of the medical records, but did not improve the actual

20 billing and insurance collection process required by the doctors, the patients, and the insurance industry.

    Billing code correlation later came along to correlate billing codes with planned or performed medical procedures. Raw codes were directly associated with all the medical procedures performed or planned to be performed with a particular

25 patient examination and then the raw codes were manipulated in such a way as to generate intermediate codes that would later be used to determine the actual billing

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codes to be used in processing the billing reports to either the patient, the insurance

provider, or both. Unfortunately, the billing code correlation approach focuses solely

on the physician's Current Procedural Terminology (CPT) medical coding system of

the American Medical Association (AMA) for reporting physician's services to the

5   Medicare program. This approach also fails to provide for a real time accounting

system that allows a doctor to view the actual costs associated with the services

rendered in discussing these fees with the patient during the actual visit.

Accordingly, there is a need for a computerized medical records and billing

system that allows for a doctor to view billing information on a real time basis with

10   respect to the entry of services rendered at the time of the patient's actual visit.

Furthermore, what is needed is a computerized billing system and medical records

system that allows for a patient to consult with the doctor during the procedure to

determine not only the best possible medical service for the patient's needs, but also

the most effective and cost efficient medical service for the patient's budget or

15   means. Further still, what is needed is a medical records and billing system that

allows a doctor to understand all phases of information entry into the data base that

includes not only the patient information and treatment and diagnosis, but also the

billing codes used for both private insurance and government insurances, such as

Medicare. It is desirable that this system be offered in a useful manner that provides

20   a graphical user interface to guide the health care provider and billing personnel

through easy to understand steps that provide not only useful medical history

records, but also clear and concise billing records for both the insurance industry and

the patient.

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SUMMARY OF THE INVENTION

According to the present invention, a record and billing service system and method are disclosed for use in health care offices. The system allows a user, typically a health care agent, to generate a visit form for a particular client. This form

5 keeps a record of the patient's health history and treatment records received at that facility. The record includes vital statistics as well as information about the health care agent treating the patient. The records can be generated in a real time setting, meaning during the actual exam of the patient. The records are kept on a computer system and stored within a records data base for paperless storage. The system

10 generates an application that shows the types of procedures, diagnosis, inventory, and the like normally provided in the health care office. The application can be customized to reflect specialties provided in that office. The system also converts the types of procedures, diagnosis and inventory matters listed in the application into accurate billing records. This provides the health care agent the ability to discuss

15 the costs associated in the procedures and better structure a cost effective treatment or solution to the patient's needs. Further, the billing records are tied to conventional government and private insurance standards for easy billing and response. The system implements the application in a graphical user interface environment to facilitate the record keeping and report generation and printing.

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BRIEF DESCRIPTION OF THE DRAWINGS

In order that the manner in which the above-recited and other advantages and objects of the invention are obtained, a more particular description of the invention briefly described above will be rendered by reference to specific

5   embodiments thereof which are illustrated in the appended drawings. Understanding that these drawings depict only typical embodiments of the invention and are not therefore to be considered limiting of its scope, the invention will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

10   Figure 1 illustrates a representative computer system upon which the present invention is implemented;

Figure 2 is a block diagram of the database file and record management system in accordance with the present invention;

Figure 3 is a flow diagram illustrating how a visit form is prepared in

15   accordance with principles of the present invention;

Figure 4 illustrate the interface used by a user in generating a visit form in accordance with Figure 3;

Figure 5 illustrates an interface utilized by a user to define aspects of the visit form in accordance with principles of the present invention;

20   Figure 6 is a second illustration of the interface of Figure 5 where a patient definition is provided;

Figure 7 illustrates an interface utilized by a user to define the health care agents, or providers, within the health care organization as seen by the patients;

Figure 8 illustrates an interface utilized by a user to define the appointment

25   types offered within the health care center;

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Figure 9 is a flow diagram depicting the method and operation of defining the providers and appointment types within the health care center, as prescribed by the present invention;

Figure 10 is a flow diagram depicting the generation of a final visit form of an actual visit of a patient, in accordance with the present invention;

Figure 11 illustrates an interface utilized by a user in defining a new appointment for a patient;

Figure 12 is a visit form utilized by a user during a patient conference and diagnosis, as shown in interface form in accordance with the present invention;

Figure 13 illustrates an inventory pull down menu feature of the visit form of Figure 12;

Figure 14 illustrates an interface utilized by a user to add a new account note to the visit form of Figure 12;

Figure 15 illustrates an Office Visit Summary feature of the visit form of Figure 12 as utilized by the user during a office visit by a patient; and

Figure 16 illustrates a record and billing summary printout for the patient after a visit with the health care agent.

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DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figure 1 illustrates the system architecture for a conventional computer system, such as an IBM Aptiva (TM) computer on which the inventive security system can operate. The exemplary computer system of Figure 1 is for descriptive

5 purposes only. Though the description below may refer to terms commonly used in describing particular computer systems, such as the IBM Aptiva computer, the description and concepts equally apply to other systems, including systems having architectures dissimilar to Figure 1.

The exemplary computer 100 includes a central processing unit ("CPU") 105,

10 which may include a conventional microprocessor; a system random access memory ("RAM") 110 for temporary storage of information and a read only memory ("ROM") 115 for permanent storage of information. A memory controller 120 is provided for controlling system RAM 110; a bus controller 125 is provided for controlling bus 130; and an interrupt controller 135 is used for receiving and processing various interrupt

15 signals.

Mass storage may be provided by a diskette 142, a CD-ROM disk 147 or a hard disk 152. The diskette 142 can be inserted into a diskette drive 141, which is, in turn, connected to bus 130 by a controller 140. Similarly, the CD-ROM disk 147 can be inserted into a CD-ROM drive 146, which is also connected by a controller 145 to

20 bus 130. Finally, hard disks 152 are part of a fixed disk drive 151, which is connected to bus 130 by controller 150.

Input and output to computer system 100 are provided by a number of devices. For example, a keyboard and mouse controller 155 connects to bus 130 for controlling a keyboard input device 156 and a mouse input device 157. A DMA

25 controller 160 is provided for performing direct memory access to system RAM 110. A visual display is generated by a video controller 165, which controls a video output

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display 170. The computer also includes a communications adapter 190 which allows the system to be interconnected to a local area network (LAN) 195, a wide area network (WAN), as well as provide an Internet connect either directly, or via the LAN or WAN, which is schematically illustrated by bus 191.

5   The computer 100 is generally controlled and coordinated by operating system software, such as the Windows 98 or NT, or other compatible operating systems. In the Macintosh systems, the operating system confirms to 7.5.5 and higher. Workstation compatible systems typically use a UNIX or LINUX compatible operating system. Conventional operating systems control and schedule computer

10   processes for execution, perform memory management, provide file system, networking, and I/O services, and provide a user interface, such as a graphical user interface ("GUI"), among other things. User applications, such as editors, spread sheets, and internet browsers, directly or indirectly rely on these and others capabilities of the operating system.

15   Computer 100 connects to a network 195, which provides access to an medical records and billing server database 200, which is shown in Figure 2. Server database 200 is similar to computer 100 in hardware configuration and provides access to a multitude of instructional media to an end user at computer 100. Further, server database system 200 provides for recording a health care agent's

20   visit with a patient. The health care agent in this application refers to any provider such as a doctor, nurse, medical assistant, dentist, dental assistant, among others. For example, the medical assistant receives a call from a patient. The medical assistant then sets up an appointment for the patient to see the doctor. The records show if the patient is a new or existing patient to that doctor or the health care office.

25   The record further shows what treatment the patient has had in the past so the medical assistant can determine if the visit is for something the patient has been in

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for before or is something new. If the matter is something new, the records also show if it is time for any follow up visits for specific matters, such as dental or eye exams, pap smears, breast exams, and other routine preventative exams within the normal course of visiting.

5   Database system 200 further provides a means for storing file information relevant to the practice of a medical facility. This information, for this example, is illustrative of a medical practice, but alternative types of business arrangements, such as accounting firms, law offices, retail establishments, and the like, may amply benefit from information and management control system provided by database 200

10   in accordance with the present invention. Database system 200 further incorporates an information and form management system 222, which may essentially be a computer system such as that of Figure 1 that allows a user to define the file types, file information to be stored, provide data entry into those particular files, and pull information from those files to generate the particular forms desired by the end user

15   as provided in the present invention. For the purposes of an exemplary embodiment of the present invention, three different file types are provided for illustrative purposes. The first file type is that of practice definition files 224, which may be stored in long term, short term, or permanent memory locations for maintenance and manipulation. The second file type is that of demographic files 226. The third file

20   type is that of patient transaction files 228. Information is transported from one file type to another and to other destinations by information and form management system 222 over bus 230.

       When a user, such as a doctor, performs a service for a patient, the service is posted via database system 200. The system accesses any of files 224-228. Each

25   type of file contains specific information relevant to either practice definitions, demographics, or patient transactions. For example, practice definition files 224

contain record sets that define how a practice works. These include provider definition records, provider appointment records, visit form definition, post definition records, such as, for example, CPT codes, adjustment codes, payment codes, text codes, and diagnosis code records. The provider definition records contain

5   information about an individual provider. The provider appointment records further define how a provider works under different situations. For instance, a provider seeing a new patient, or a provider performing surgery, would perform different procedures, and therefore, have a different selection on the visit form. The visit form definition records define a pool of formats that can be selected by a provider to meet

10   these individual needs. The posting definition records define the allowable codes the user may use in creating transactions. These transaction codes include the charge codes (CPT), adjustment codes, for example write-offs, discounts, and the like, and the payment codes, which include cash payment, credit card payment, insurance payment, and the like. The diagnosis records define the medical reason a certain

15   procedure (CPT) is used.

Demographic files 226 contain all information about an account and a patient necessary to generate statement and insurance forms. This information includes addresses, age, sex, marital status, insurance coverage, and other vital statistics related to the patient are contained in these records.

20   During an office visit, the provider meets with the patient. During this meeting, the provider accesses the definition records in the demographic files 226 to display or print a form for the provider to indicate what procedures have been performed on or behalf of that patient. After the provider or another office worker indicates those procedures that have been performed, or what adjustments and

25   payments have been performed, transaction records are written into the database and stored in patient transaction files 228. The transaction files include charge,

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adjustment, and payment information as well as medical diagnosis information. These transaction records are later used in billing statement and insurance reimbursement form generation as is described in greater detail below.

All the records found within database 200 are used when any clinic personnel

5 wish to view or print information about a patient's history. Since all the data is archived, the service provider can generate an exact image of the form or graphical user interface a screen that was initially used to recreate the session.

In accordance with the present invention, a method and system for storing patient medical information is disclosed. The medical information includes who the

10 patient is, the patient's prior treatment, known allergies, and other medical information typically surveyed from the patient or garnered from prior medical treatment at scheduled appointment is to commence. An example of a typical visit form in accordance with the principles of the present invention is illustrated in Figure 12, which is described in greater detail below. The first section disclosing the

15 present invention is directed towards the actual setting up of a visit form for use in a specific health care facility. Such health care facilities can be selected from general practice medicine to specialties such as orthopedics, ophthalmology, dentistry among others. Figures 4-6 along with the flow diagram of Figure 3 present the set-up of the actual visit form to be used within a particular health care organization. For

20 this example, the health care organization is an eye care center. The second section of this disclosure is directed towards the development of visit forms as defined by appointment types of specific providers within the health care organization. This is illustrated in Figures 7 and 8 and described in the flow diagram of Figure 9. Lastly, the third section of the present invention discloses how a visit form is utilized within

25 the method and system for recording the medical information of a given patient and then providing comprehensive billing record of the same. Figures 11-16 illustrate the

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various stages of actually completing a visit form and then generating a transaction history for a given patient account and is described with respect to the flow chart of Figure 10.

5   Establishing a Visit Form

Figure 3 depicts a block diagram of a flow chart detailing the steps performed in establishing a Visit Form, like the one shown in Figure 12, for use in recording medical information and history of a patient within a medical organization, health care facility, dental office, or surgical center, but not limited thereto. The form
10   developer, also referred to as the system user, interfaces with the form generation program in accordance with the present invention within a graphical user interface (GUI) a illustrated in Figures 4-6. Figure 4A depicts a GUI screen of a visit form field 410 in accordance with the present invention. Visit Form field 410 is noted by a header 412 defined as "Visit Form Header." A Visit Form ID 414 is provided as well
15   as a Status box 416. A Description 418 for the Visit Form Header is provided in addition to a Copy Existing Form box 420. Additional elements are provided that are standard within a GUI screen such as the following activation buttons "OK," "Cancel," "Delete," and "Lock Form."

Visit forms are used to record the procedures performed and diagnosis given
20   a patient while visiting with a health care agent. The visit forms may be printed to provide the patient with a record.

To establish and define a given visit form, the user selects a "Visit Form Definition" operation within a given set-up menu as shown in step 310. Next, in step 312, the user selects a "New Visit Form" button and a Visit Form Header window 410
25   is displayed at this point as shown in step 314. Next, in step 316, the user enters a

Visit Form ID in field 414 to identify the visit form being created. Next, in step 318, the user enters a description of the visit form being created in Description field 418.

If there is an existing visit form, as inquired in step 320, and the existing visit form has the same format or much of the same data needed for the new form, the user selects the form and the system proceeds to step 322. Otherwise, the system proceeds to step 336. Thus, if there is no existing form, a new form structure must be defined using the remainder of the window as provided in steps 336-344. Continuing to step 322, the user opens a copy of the existing form by way of the drop-down box in field 420. Next, in step 324, the user selects an existing form to copy. This is verified by the user by selecting the "Creating form BLD from BLC-OK" warning block 422 shown in Figure 4B. Once the information is copied, the user is then asked to verify if the information displayed is correct as shown in step 326. If the information is correct, the system continues to step 328 where the information is actually copied; otherwise, the system proceeds to step 346.

In step 328, the user is again asked to confirm whether the information needs to be copied via "Copy Detail Lines Also" warning block 424. If the user elects to copy the information, then the system proceeds to step 330; otherwise, the system proceeds to step 346. In step 330, the system begins populating the window with the copied information. Figure 4C illustrates the Visit Form window 410 being repopulated in response to step 330.

In the example of Figure 4C, the Visit Form ID is identified as "BLD," which are the initials of the provider's name. Status field 416 is unlocked and Description field 418 is provided with a Sample Visit Form (2). Copy Existing Form field 420 now includes a BLC-Sample Form-Unlocked describing from which sample form Visit Form ID BLD originated. Information pulled from the BLC sample form is used to populate the procedure column set-up and diagnosis column set-up as shown.

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Three different columns are populated in the procedure column set-up with a column heading for each including "description," "code," and "amount." Within the diagnosis column set-up, there are three columns as well and their descriptions include "description," "code," and "flag."

5   A typical visit form is designed to be printed on an 8½ by 11 inch form, but other sizes may be used, such as A4, legal size, or 8½ by 14 inch, or any other paper size desired by the medical facility. The procedure column set-up and diagnosis column set-ups can be defined to have a desired column width and sequence. These widths are adjustable according to the needs of the user based on

10   the user's personal taste and functional arrangement of the actual visit form. After the Visit Form Header window 410 has repopulated with the copied information, the system then verifies that all column headings, widths, alignment, and field type are correct as shown in step 332. If the column information is not correct, the system proceeds to step 346; otherwise the system proceeds to step 334.

15   In step 334, the system displays the new visit form in a Visit Form Definition window 510 illustrated in Figure 5. At this point, the original Visit Form Header window 410 of Figure 4 disappears and the newly generated Visit Form BLD-Sample Form appears in the Find Visit Form drop-down box 512 of the Visit Form Definition window 510. At this point, the system proceeds to Figure 3B to continue from flow

20   connector A and complete steps 350-354.

Returning to step 320, if there is no existing visit form to select, the system then proceeds to step 336. In step 336, the system defines the form structure as selected by the user, which in this case is illustrated by the Status window 416 as "Creating New" shown in Figure 4A. Next, proceeding to step 338, the system opens

25   the Rows On Form field for the user to select the number of rows needed. After the user selects the desired number of rows, the system proceeds to step 340 where the

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user is allowed to define the specifications in the Procedure Column Setup field

shown in Visit Form Header window 410. After defining the specifications for the

procedure column(s), the system proceeds to step 342 where the user defines the

specifications in the diagnosis column setup as provided in the Diagnosis Column

5   Setup field of window 410. After the specifications for both the diagnosis and

procedure columns have been defined, the system then displays the newly defined

form in Figure 5 further in Find Visit Form box 512. in accordance with step 344.

In setting up the Procedure Column Setup section of window 410, the user

defines the specifications for each of the columns by entering the width of each

10   column, entering the heading to appear over each column, defining the alignment

box, and defining the field box. In the alignment box, a C, L, or R is used to either

center the data within the column, perform left justification, or perform right

justification of the data, respectively. In the FLD or field box, the user enters either a

C, D, or A, which is used to define if the data to be entered is the procedure code,

15   the procedure description, or the procedure amount, respectively. Alternatively, the

FLD box may be left blank if the data is something other than a code, description, or

amount.

In the Diagnosis Column Setup section of window 410, the user defines the

specifications for each of the columns by entering the width of each column, entering

20   the heading to appear over each column, and defining the align box and field box in

the same manner as was done with the Procedure Column Setup previously

described.

As depicted in step 346, the user selects the newly created form in the Find

Visit Form drop-down box 512 shown in Figure 5. Once the appropriate visit form is

25   selected, the system displays the visit form definition window 510 with the populated

fields from the created form in accordance with step 348. Next, the system proceeds to step 350 shown in Figure 3B.

Figure 6 depicts a Visit Form Definition window 510 like that in Figure 5 as selected in either step 334 or 348. In this example, visit form ID field 514 provides

5   an identification of the patient by way of the provider's visit form ID. Other types of identifiers may be used, such as, for example, specialty practice, hospital designation, or other identifier related to the patient by procedure, provider, location, or the like. In this example, the provider's name is Donald Ford with the initials being DMF. A description of the actual form is shown in Description field 516, which in this

10   case is Donald Ford Visit Form. The status shown in Status field 518 is "unlocked." From here, the user enters and defines column headings, procedure codes, diagnosis codes, and payment/adjustment codes as shown in step 350. To enter column headings, the user first verifies that their own number is correct and then skips the actual code billed. Next, the user enters the wording for the heading in the

15   description field. Descriptions may include, for example, the following:

        PROCEDURES

        PROCEDURES EVALUATION AND MANAGEMENT SERVICES

        CONTACT LENS MATERIALS

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Next, the user enters a "Y" in the HDNG box located next to the description field and then presses <enter>.

A user can enter procedure codes in one of two ways. The first manner in which user can enter procedure codes includes verifying that the row number is

25   correct, opening the Select CPT drop-down box, searching for the appropriate CPT code desired by either using the scroll bar on the right of the drop-down box or by

entering the first characters of the CPT code to position the entries closer to the desired code, click on the desired CPT code, and then press <enter>. The second way for entering a procedure code is to verify that their own number code is correct, enter the CPT code in the Code field, enter the CPT description in the Description

5   field, and then <enter>. Next, the user enters a desired diagnosis code.

There are two ways in which the diagnosis codes may be provided. The first way is performed as follows. Initially, the user verifies that their own number is correct, then the user opens the Selected Diagnosis drop-down box shown within the Select Diagnosis drop-down box field, then the user searches for the diagnosis code

10   desired by either using the scroll bar to the right of the drop-down box or by entering the first characters of the diagnosis code to position the entries closer to the desired code. Once the desired code is selected, the user clicks on that code and presses enter to effect the selection. The second way in which the user may select a desired diagnosis code is to first verify that their own number is correct, enter the diagnosis

15   code in the code field, enter the diagnosis description in the description field, and then press enter.

Lastly, the user enters the payment/adjustment codes by one of two ways. Initially, the user verifies that their own number is correct, opens the Select Adjs/Pmt drop-down box, searches for the Adjust or Payment code prescribed in a manner

20   similar to that described for other drop-down box interfaces, clicks on the desired adjustment payment code and presses <enter>. The second manner includes verifying that their own number is correct, as in the first manner, entering the payment or adjustment code in the code field, entering the payment or adjustment description in the Description field, and then pressing <enter>.

25   Next, as shown in step 352, the user clicks on the Form Preview button within the Visit Form Definition window 510 of Figure 6. Upon selecting the Form Preview

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button, the system then formats the form for review by the user to verify that the selections made with respect to headings, procedure codes, diagnosis codes, and payment/adjustment codes has been properly effected. Once the form is complete as shown in step 354, the user clicks OK and exits the Visit Form Definition window

5   510.

Provider and Appointment Form Setup

This section discloses the development of visit forms by appointment type and by provider as illustrated in Figures 7 and 8 and the flow diagram illustrated in Figure 9.

10   First, the user selects a provider for the particular appointment type and visit. At this stage, the selected provider and appointment type can list several options that are typically associated with the particular appointment type. Upon selection, the user defaults to the listed options, unless the user deselects these options prior to finalizing the visit and appointment type entry related to the patient. To select the providers for the appointment types and visit forms, the user selects the providers

15   from a set of menu as shown in step 910 in the flow diagram of Figure 9. In step 912, the system displays a provider file list of the existing providers as shown in Provider Setup window 710 of Figure 7. Once the provider file list is displayed, the user locates and selects a provider to be edited in accordance with the step 914.

20   Next, in step 916, the user selects the provider appointment types as noted by the APPT Types button in window 710. The system displays the provider appointment types as shown in Figure 8 in Provider Appointment Types window 810. At this point, the system automatically inserts the provider code and provider name in the appropriate Provider field shown in Figure 8 in accordance with step 920. The use is

25   now allowed to make modifications such as additions or changes to the provider shown in the Provider field of Figure 8.

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Next, in step 922, the user performs a procedure code assignment to a given appointment type. This is performed in one of two ways. The user can assign one or more procedure codes to an appointment type by manually entering a valid appointment type code in the APPT Type box, tabbing to the first procedure field

5   immediately to the right of the appointment type description, manually entering a valid procedure, or posting code in the first procedure box where in this example as many as five procedure codes may be assigned to an appointment type by manually entering the valid procedure codes in the subsequent procedure fields. Alternatively, the user can assign one or more procedure codes to an appointment type by

10   opening the select appointment type drop box shown within field 810 and clicking on the appointment type to assign and then opening the find procedure drop box and clicking on the procedure code to assign.

Once the procedure codes have been assigned to the appropriate appointment type, the system proceeds to step 924 where the user assigns the visit

15   form to the appropriate appointment type. There are two options for assigning a visit form to an appointment type. The first option allows the user to enter manually a valid appointment type code in the APPT Type box, tab to the appropriate visit form field immediately to the right of the procedure description column, and manually enter a valid visit form code in the visit form box. The second option allows the user

20   to open the Select Appointment Type drop-down box and click on the appointment type to assign and then open the select visit form code drop-down box and click on the visit form to assign. Afterwards, the user verifies that the proper assignments have been made and the system accepts the provider record in accordance with step 926. This is done by clicking on the OK button shown in Provider Appointment

25   Types window 810. The provider appointment types are now completed and the system returns for further processing.

Patient Profile and Billing Record

Figure 10 is a flow diagram of the implementation of a patient profile and billing record in accordance with principles of the present invention. The patient profile provides for medical records that a physician or medical care attendant can

5   review when visiting with the patient during future visits. The billing records allow for the medical service attendant to view the status of the bills incurred during the services rendered to the patient so that the patient can see the cost as well as being able to pay either personally, via insurance, or by some other means.

The user, meaning the health care agent, begins in step 1000 by selecting a

10 business function selection from the accounts menu that has been described previously. Once the business function has been selected, the program displays Business Functions window 1110 as depicted in Figure 11. Window 1110 includes a Calendar section 1112 for selecting any day upon which visits are to be scheduled or have been scheduled. When the Business Functions window 1110 is displayed, the

15 appointments for the current date automatically appear as established by the computer system. If appointments for a different date or for multiple dates are desired, the user selects the appropriate appointment date in accordance with step 1002, which allows the user also to select a range of dates by clicking and holding a beginning date and moving to the ending date before releasing. At this point, as

20 shown in step 1004, the user verifies that the post from visit forms radio button is selected, which is typically set by default. In step 1006, the user selects and runs the patient appointments to post by clicking on the run button within window 1110. At this point, as shown in step 1008, the system then displays a visit form matching the select patient information where the patient information is automatically

25 populated in the appropriate fields as shown in Figure 12.

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Figure 12 illustrates a Visit Form Entry window 1210, in this example for an

Eye Care Clinic. There is a Visit # field as well as fields for appointment date,

appointment time, account number, provider name, patient name and social security

number, date of birth, phone numbers, addresses, insurance company, and account

5   balance. Additional fields include evaluation and management services, medical

diagnosis and treatment, which both have additional subsets as illustrated in Figure

12. Next, in accordance with step 1010, the user selects a primary diagnosis. The

user makes this diagnosis selection by selecting one of the Diagnosis field of window

1210. If a desired diagnosis is not visible, the user then can scroll down using the

10 scroll tools shown on the right side of window 1210 until the user locates the desired

diagnosis. At this point, the user selects the diagnosis by placing a check mark next

to it. Upon selection of the given diagnosis, a price associated with that diagnosis is

automatically entered into the accounting portion of the program, which displays the

price on the procedure line adjacent the selective diagnosis. Further, the procedure

15 code and dollar amount is then inserted in the visit summary box 1520 of Figure 15.

Next, in step 1012, the user selects the patient type, and in response to the

selection, as shown in step 1014, the system displays the price, procedure code, and

dollar amount as previously described in the visit summary box. Significantly, the

diagnosis code is attached to the procedure as shown in step 1016.

20   In step 1018, the user then is able to select a secondary diagnosis and any

subsequent diagnosis, where applicable, by clicking on the appropriate diagnosis

shown on the field of view. Next, in step 1020, the user, if applicable, selects a

tertiary diagnosis. Next, in step 1022, the user selects an appropriate procedure and

the appropriate and selected diagnosis codes are then attached to the selected

25 procedure as shown in step 1024. The system provides the option for the user to

select an unlisted procedure, as shown in step 1026. When the user selects an

unlisted procedure, an Enter Amount box is generated and displayed to override any predefined price. Step 1028 illustrates that the user, not only when selecting an unlisted procedure, may perform a price override when necessary. Further, there is an "Other" selection where the user selects "Other" as shown in step 1030.

5   In this example, which is also illustrated in Figure 13 that is a window close-up view of field 1210 of Figure 12, a drop-down menu for category code is depicted. This example uses the codes for contact lenses. This procedure in this example is made up of inventory, so a list of associated inventory items is displayed. The user then selects the desired inventory item, in this case "Contact Lenses Soft Toric

10   Disposable," and then the associated price appears in the box next to the inventory code and description. The user can change the price by using the price override feature as previously described. Further, the user can change the quantity of items from one to two or more. The system then displays the appropriate inventory list as shown in step 1030 while allowing the user to select from the inventory list displayed.

15   Next, in step 1032, the system displays the price associated with this selected inventory item along with an appropriate description. Then, in step 1034, the user can select the given price and change the inventory quantity as an optional step. Once the selected price and quantity of inventory has been selected, the user clicks OK. At this point, as shown in step 1036, the system enters the procedure in the

20   Visit Summary box 1520, which is illustrated in Figure 15 and as performed in step 1038. Further, the user can deselect a given procedure, which has the effect of removing that procedure from the visit summary box and the totals are adjusted accordingly in an automatic fashion.

          Once the visit has been completed and all the services and diagnoses and

25   procedures have been entered, the user, with the aid of the patient, selects the personal payment option and enters the final amount in accordance with step 1040.

This amount is then displayed as the payment amount made by the patient and as shown in step 1042. Once the amount has been properly entered as that being paid by the patient, the amount is displayed along with the payment code in Visit Summary box 1520. The user next can select the Visit Summary window to perform

5 a modifier code option. Modifier codes allow the provider to modify the procedure to reflect the actual service rendered, which may be either more or less than what was initially selected. For example, in some cases, the review may be routine enough that a full visit is not performed, hence a discount would be in order. In another example, during a surgical procedure, the surgeon may discover other complications

10 not previously know and modify the service accordingly so that the insurance billings will reflect the discovered complications. The user selects the Visit Summary menu in accordance with step 1044 and then selects the modifier codes in accordance with step 1046. In step 1048, the user enters a desired modifier code; for example, the user can enter a bilateral procedure code to a highlighted code shown in the visit

15 summary box. These modifier codes can include such modifications as a discount code, activated by a discount button as shown in Figure 15 in eye care information services — visit form entry window 1510 and in pull-down window or visit summary window 1520 where a discount button is provided. Step 1050 illustrates that the user can select the discount feature for the highlighted codes and enter the appropriate

20 discount amount. The following which, in step 1052, the system displays the discount code and amount in the visit summary field.

Next, in step 1054, the user can select a Create/Recall button shown in the visit form field 1210, which displays an Add New Account Note window in accordance with step 1056 and illustrated in the window 1410 of Figure 14. In step

25 1058, the user enters the recall date for the patient. This recall date is utilized to set up a time for the patient to return for a follow-up visit or a scheduled routine visit at

the health care office. Next, in step 1060, the user opens the Build From Comment File drop-down box, selects the Add Note button so that the recall can be added. Then, in step 1062, the user clicks on the Post button, which can also post with receipt, to post the information in the completed form, process the entered visit

5 information, and generate a receipt. Once this is completed, the system displays the patient transactions history in step 1064, which is illustrated in the Transaction History diagram 1610 shown in Figure 16. In this example, for the eye care clinic, a transaction history for the account 1000 is displayed. The name of the patient is listed, the code description for the transactions along with the amount are displayed

10 with a subtotal for the period of the transaction as well as a current account total due being displayed for the benefit of the health care facility and for the patient.

In another alternative embodiment, the invention may be implemented as a computer program-product for use with a computer system. Such implementation may include a series of computer instructions fixed either on a tangible medium,

15 such as a computer readable media (e.g. diskette 142, CD-ROM 147, ROM 115, or fixed disk 152 as shown in Figure 3) or transmittable to a computer system, via a modem or other interface device, such as communications adapter 190 connected to the network 195 over a medium 191. Medium 191 may be either a tangible medium (e.g., optical or analog communications lines) or a medium implemented with

20 wireless techniques (e.g., microwave, infrared or other transmission techniques). The series of computer instructions embodies all or part of the functionality previously described herein with respect to the invention. Those skilled in the art should appreciate that such computer instructions can be written in a number of programming languages for use with many computer architectures or operating

25 systems. Furthermore, such instructions may be stored in any memory device, such as semiconductor, magnetic, optical or other memory devices, and may be

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transmitted using any communications technology, such as optical, infrared, microwave, or other transmission technologies. It is expected that such a computer program product may be distributed as a removable media with accompanying printed or electronic documentation (e.g., shrink wrapped software), preloaded with a

5   computer system (e.g., on system ROM or fixed disk), or distributed from a server or electronic bulletin board over a network (e.g., the Internet or World Wide Web).

        The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrated and not restrictive. For example,

10   although the specific embodiments have been limited to application in the medical services industry, the invention has broader applications in that it is directed towards and covers those situations wherein accounting, reporting, and billing records are coordinated during client/patient/customer meetings. This can include insurance companies that have insured clients meet during an office visit to review policies,

15   values, claims and the like. It also can include law offices where billing programs lack this real time ability to provide a services accounting and billing statement in a quick and easy fashion by the legal services provides, typically an attorney, without the need to "go through accounting" first. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All

20   changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

        What is claimed is: